Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUVAL ISHAI,
CHRISTOPHER T. KELLO, MILA KEREN,
RICHARD KIRCHHOFER, LEV KOZAKOV,
and ZVI Y. YEHUDAI

Appeal No. 1999-1598
Application 08/668,656[1]

ON BRIEF

Before HAIRSTON, JERRY SMITH, and BARRETT, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

[1] Application for patent filed June 25, 1996, entitled "Object Oriented Data Arranger Graphical User Interface."

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1, 3-32, 34-43, and 45-55.

We reverse.

BACKGROUND

The disclosed invention relates to a graphical user interface which allows a user to select data and designate operations to be executed on data files. A task icon is created which contains a data structure necessary to reconstruct the sequence of program instructions. The task icon is displayed and can be selected by the user for execution.

Claim 1 is reproduced below.

> 1. A method of operating a computer system having a display, one or more data storage devices, and an application program for manipulation of data files, the method comprising the steps of:
>
> designating a sequence of user-specified application program data operations on one or more data files;
>
> producing a selectable display task icon that represents the sequence of data operations; and
>
> responding to user selection of the display task icon by executing the sequence of application program data operations on the data files;
>
> wherein the step of designating includes designating a field range representing one or more data records contained in a data file that will be used as input to

the data operations such that the execution of the data operations will occur on the designated field range.

The Examiner relies on the following patent:

Rothfield 5,428,776 June 27, 1995

Claims 1, 3-32, 34-43, and 45-55 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Rothfield.

We refer to the final rejection (Paper No. 8) (pages referred to as "FR__") and the examiner's answer (Paper No. 16) (pages referred to as "EA__") for a statement of the Examiner's position, and to the appeal brief (Paper No. 14) (pages referred to as "Br__") and the reply brief (Paper No. 17) (pages referred to as "RBr__") for Appellants' arguments thereagainst.

OPINION

The claims are grouped to stand or fall together (Br3). Claim 1 is selected as representative.

"Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Data Files

Appellants argue that claim 1 recites operations on one or more "data files," whereas Rothfield represents a query that is to be executed against one or more "database tables." It is argued that the terms "data file" and "database table" are not synonymous or equivalent as evidenced by the definitions of data files and tables provided below from the Dictionary of Computing (4th ed., Oxford Univ. Press 1996) supplied by Appellants:

> **data file** A *file containing data, such as a file created within an applications program; for example, it may be a word-processing document, a spreadsheet, a database file, or a chart. Data files are normally organized as sets of *records with one or more associated *access methods.
>
> **table** A collection of *records. Each record may store information associated with a key by which specific records are found, or the records may be arranged in an *array so that the index is the key. In commercial applications the word table is often used as a synonym for matrix or array.

It is argued that one operating Rothfield's system would only be enabled to conduct operations on data tables not on data files. It is argued that the structures of data files are not so organized as data tables, at least not with the objective of supporting queries (Br5).

The Examiner notes the argument that "database tables" in Rothfield are not "data files," as claimed (EA5), but fails to address the merits of the argument.

Appellants respond that the examiner's answer maintains the reading of a "query" or "table" in the prior art for "data file" in the rejected claims and argues that the Examiner has introduced no evidence to support this conclusion (RBr1).

We see nothing inconsistent in calling the database file in Rothfield a "data file." The definition of data file in the Dictionary of Computing indicates it is a generic term for many different file structures, including a database file. In fact, Appellants' own specification refers to database files arranged as tables as data files (specification, p. 1, lines 21-28): "The data can often be arranged in tables, each table comprising rows and columns of cells that contain information. . . . Data base management systems have been developed to assist users in the manipulation and management of data stored in data files of data processing systems." See also specification, p. 2, lines 1-28. Thus, Appellants' argument is not credible. We find that the database tables in

Rothfield (e.g., the Databases 2-4 and Source Tables 2-6 in Fig. 3) are data files.

Designating a Sequence of Operations and a Field Range

Claim 1 recites "designating a sequence of user-specified application program data operations on one or more data files; . . . wherein the step of designating includes designating a field range representing one or more data records contained in a data file that will be used as input to the data operations such that the execution of the data operations will occur on the designated field range."

The Examiner finds that Rothfield teaches designating a field range 6-2f at column 6, lines 5-68, and Figs. 5-9 (FR2).

Appellants argue that Rothfield cannot designate a sequence of data operations on a designated field range of data records contained in a data file because the query language in Rothfield designates keys or columns of tables (Br6). It is argued that the present invention designating a field range of records refers to specifying a field name and field length, wherein the field length can be a byte range specified irrespective of data record values. Rothfield's filter values permit a user to exclude data of an input table

based on the content of the table, which is said to be unlike the claimed field range limitation (Br6).

The Examiner responds by referring to the Browse Table command, Open View Diagram command, and Show Fixup Log command (EA5-6). These commands are discussed at column 4, lines 45-52. However, since we fail to see the relevance of these commands to the limitation at issue, we do not discuss this further.

We agree with the Examiner that Rothfield teaches the step of designating a sequence of data operations on a designated field range of data records in a data file. The user designates which fields of the input data table will be used as input to the data operations. For example, in the Aggregate operation of Fig. 4, the user can designate which fields of the input table 2a (having the name Employees 4a) of Fig. 2 are grouped for the aggregate operation. These fields are one or more data records of the table data file. For example, in Fig. 4, the field REPORTING_DEPT_NUMBER has been selected to group information and the field AVG SALARY has been selected as the data to aggregate. Claim 1 does not recite specifying a field name and field length, wherein the

field length can be a byte range specified irrespective of data record values, so Appellants' arguments are not commensurate in scope with the claim language. Claim 1 does not preclude the field ranges from being enumerated fields as shown in Rothfield. Claim 1 does not recite how the field range is designated, so it does not distinguish over Rothfield's method of selecting fields. We find that Rothfield teaches designating a sequence of operations and designating a field range.

Producing a Selectable Task Icon

Claim 1 further recites "producing a selectable display task icon that represents the sequence of data operations."

The Examiner finds that Rothfield teaches "producing a display task icon 14a,26 that represents the sequence of data operations" (FR2).

Appellants argue that Rothfield does not teach this limitation (Br6). It is argued that Rothfield provides selectable graphical nodes, but each node represents a table that is the subject of a database query and has nothing to do with the execution of operations "on one or more data files," as specified in the claims (Br6-7).

The Examiner responds that Rothfield shows a palette with a number of icons, such as a project icon, a filter icon, and a join icon, which represent data operations on a table (EA6).

The Examiner's reading of claim 1 onto Rothfield does not meet the claim limitation. In particular, the limitation requires "a selectable display task icon" (emphasis added), i.e., a single icon, "that represents the sequence of data operations" (emphasis added), i.e., that represents more than one data operation because a sequence requires a series. The nodes in the Query diagram in window 1a of Rothfield (except for the Sort node 18a) have three components: the functional part, which is either a table or an operator icon; the name; and an output icon (col. 4, line 64 to col. 5, line 4). Thus, to use the Examiner's example, 14a is a Filter icon (col. 4, line 68) which represents a user-designated filter operation. However, Filter icon 14a only represents a single data operation, not a sequence of data operation. Claim 1 requires that the Query, the sequence of data operations shown as icons in the window 1a in Fig. 2 which represents the designated "sequence of user-specified application program data operations on one or more data files" from the first step of

claim 1, be converted into "a selectable display task icon." This is not taught in Rothfield. Rothfield discloses that the Query may be stored as if it were a table to be accessed later (col. 8, lines 36-40) and may be opened by the Open View Diagram (col. 4, lines 47-49), but does not describe representing the Query as a display task icon. While it may be known to represent files and application programs as icons, such as icons on a Windows desktop, no evidence has been provided and, in any case, such evidence would be inappropriate to an anticipation rejection. The Examiner's reliance on the icons in the palette 50 is not persuasive. These icons are tools used to create the sequence of data operations and do not represent a user-specified sequence of data operations.

Therefore, the Examiner erred in finding that Rothfield discloses the step of "producing a selectable display task icon that represents the sequence of data operations."

Selecting the Task Icon and Executing the Data Operations

Because Rothfield does not disclose "producing a selectable display task icon that represents the sequence of data operations," it does not disclose the further step of

"responding to user selection of the display task icon by executing the sequence of application program data operations on the data files." Nevertheless, we briefly address the limitation.

The Examiner finds that Rothfield teaches "responding to user selection of the display task icon 10 by initiating execution of the application program data operations on the data files 2a (see col 4-5, lines 5-60 and figures 1-2)" (FR2). Icon 10 represents the name ("dept salaries") of the aggregate node 2a in Fig. 2. It does appear that selecting a node in Fig. 2 and the Browse Table 9b command of Fig. 1B causes the operation to be executed because the data is represented in a dialog box as shown in Fig. 11 (col. 7, lines 25-27). However, the icon does not represent "a sequence of application program data operations" because it only represents a single operation. Therefore, the Examiner erred in finding that Rothfield discloses the step of "responding to user selection of the display task icon by executing the sequence of application program data operations on the data files."

CONCLUSION

Because Rothfield does not disclose the steps of "producing a selectable display task icon that represents the sequence of data operations" and "responding to user selection of the display task icon by executing the sequence of application program data operations on the data files," it does not anticipate claim 1. Corresponding limitations are found in the other independent claims. Accordingly, the rejection of claims 1, 3-32, 34-43, and 45-55 is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
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